CITY OF FULSHEAR

WATER CONSERVATION PLAN

SECTION 1.0 GENERAL

1.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or the protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Fulshear adopts the following water conservation plan.

Water uses regulated or prohibited under the Water Conservation Plan (the Plan)are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offenders (s) to penalties a referenced in Section 6 of the plan.

1.2 Definitions

For the purpose of this Plan, the following definitions shall apply:

Aesthetic water use: Water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: Water use which is integral to the operations of commercial and non-profit establishments and governmental entities, such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation: Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss and/or waste of water, improve the efficiency of the use of water, and increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: Any person, company, or organization using water supplied by the City of Fulshear.

Domestic water use: Water use for personal needs or for household or sanitary purposes such as drinking, cooking, bathing, heating, cooling, sanitation, or for cleaning a residence, business, industry, or institution.

Drought Contingency Plan: A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management documents(s).

Municipal per capita water use: The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use: The use of potable, water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day: The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water or pumped for treatment for potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks and right-of-ways and medians.

Non-essential water use: Water uses that are neither essential nor required for the protection of public, health, safety, and welfare, including:

a. Irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this plan.
b. Use of water to wash any motor vehicle, motorbike, boat trailer, airplane, or other vehicle.
c. Use of water to wash down any sidewalks, walkways, driveways parking lots, tennis courts or other hard-surfaced areas.
d. Use of water to wash down buildings or structures for purposes other than immediate fire protection.
e. Flushing gutters or permitting water to run or accumulate in any gutter or street.
f. Use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools.
g. Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life.
h. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).
i. Use of water from hydrants for construction purposes or any other purposes other than firefighting.

Pollution: The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Public water supplier: An individual or entity that supplies water to the public for human consumption.

Regional water planning group: A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code 16.053.

Retail public water supplier: An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when the water is not resold to or used by others.

Reuse: The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before the water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

Water conservation plan: A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss of waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

1.3 Review and Modification of Plan

This water conservation plan will be reviewed and updated, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The City will review and update the next revision of its water conservation plan not later than September 15, 2017, and every five years after that date to coincide with the regional water planning group.

1.4 Authorization, Implementation and Enforcement

The City Administrator, or his/her designee, is hereby authorized and directed to implement and enforce this Water Conservation Plan. **Exhibit A is a copy of Ordinance 2012-????** which formally adopts this plan, outlines the implementation and enforcement authority of the City Administrator, and provides for the most recent update.

1.5 Application

The provisions of this Plan shall apply to all persons, customers and property utilizing water provided by the City of Fulshear. The terms person and customers as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities. This Plan was adopted and place into effect by the City Council of the City of Fulshear in accordance with Ordinance Number 2012-????.

1.6 Severability

It is hereby declared to be the intention of the city Council of the City of Fulshear that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been

enacted by the City Council of the city of Fulshear with the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

SECTION 2.0 UTILITY PROFILE

The City of Fulshear Utility Profile is found under the **Exhibit B** to this Water Conservation Plan.

SECTION 3.0 WATER CONSERVATION PLAN

3.1 Specification of Conservation Goals and Objectives

In accordance with 30 TAC Part 1, Chapter 288, Subchapter C, Rule 288.2 (a)(1)C the following objectives and five (5) and ten (10) year targets have been established:

The objectives of this water conservation plan are as follows:

To promote water conservation.
To determine and control unaccounted water usage.
To reduce the loss and waste of water.
To maintain an accurate record of water usage.

1. Goals of the Program (5 year target and goals)

A. Beginning in the year 2012, the City of Fulshear goals are to achieve a municipal use of 138 gallons per capita per day for the first 5 years 2012-2017.
B. Beginning in year 2012, the City of Fulshear goals are to control the water loss not to exceed 15% for the first 5 years (2012-2017).

2. Goals of the Program (10 year target and goals)

A. Beginning in the year 2012, the City of Fulshear goals are to achieve a municipal use of 120 gallons per capita per day for the next 10 years (2017-2027) and also achieve a municipal use water loss goal of an additional 2 gallons per capita per day for the period 2017-2027.
B. Beginning in 2012, the City of Fulshear goals are to manage the water loss to 15% or less for the next 10 years (2017-2027).

3. The projected baseline to reduce per capita per day consumption is 140 gpcd.

To accomplish these goals the City of Fulshear will utilize the programs and policies in this Plan such as accurate metering devices, universal metering, meter testing and repair, periodic meter replacement, control of unaccounted water, public education, non-promotional water rates, and leak detection and repair.

3.2 Metering

The City of Fulshear meters 100% of the connections to the distribution system including municipal uses. Meters range in size from ¾" to 8". All meters are designed to provide accurate flows to within +/-5%.

The City practices a meter change-out program whereby meters are changed out every 20-15 years. Additionally, larger meters are field tested and repaired for accuracy. Generally, the City does not use repaired meters in the system.

The Water Treatment Plants has metering for treated water. The metering is accomplished through turbine meters. Certified calibration is preformed bi-annually.

3.3 Determination and Control of Unaccounted-for Water

A. The City makes a monthly accounting of water delivery efficiencies. At the end of each period, the Public Works Department calculates the difference between water pumped to the system and water sold through the meters. This calculation is reduced to a percentage of water losses. This is maintained and reviewed on an annual basis.

B. Leaks are reported by any municipal employee as well as the general public.

C. The Water Plants are monitored daily and system pressure is checked carefully. Any unusual pressure level may be indicative of sizeable leaks and reported to the maintenance section as soon as noted.

D. All leaks are repaired the same day or as soon as practicable.

3.4 Public Education

The City will support programs to educate the public regarding water conservation activities that support its goals. This includes educating the general public on the need for and practices of water conservation through public service announcements and other means. This information will be provided by means of public notice, web site, press releases, and mailings.

Though the City of Fulshear website and the Annual Consumer Customer Report, the City will provide water conservation tips to its customers. In addition, the City will partner with the schools to educate the students on water conservation.

3.5 Water Rates

The City of Fulshear has base rates determined by the size of the meter, and a declining block rate. **Exhibit C** is a copy of the water rates from the code of Ordinances.

3.6 Water Systems Operations

The City of Fulshear owns and operates two (2) ground water plants. Both of the plants are in Fort Bend County. The water is pumped from the wells, and it is treated and stored in ground storage tanks, and/or elevated storage tanks, which produces the water pressure for residential and commercial use. The volume capacity of the two (2) facilities is 1,000,000 gallons. The two (2) water plants are able to produce 2,880,000 gallons of water per day.

3.7 Record Management System

A. The Public Works Department maintains records of:

Water received from the ground plants/
Water pumped to the distribution system.
Water used for flushing and sewer line cleaning.
Estimates of water losses due to water leaks, fire hydrant flushing, and firefighting/training.

B. The Administrative Services Departments maintains records of :

Water Sold
Water Rates

3.8 Water Supply and Interconnect Contract

The City has two water supplies at this time and no interconnects.

3.9 Plumbing Codes

The City operates under the 2003 International Plumbing Code. This code has been formally adopted by the City Council and is included to the City of Fulshear Code of Ordinances. A copy of this code is on file with the City Secretary. The City routinely inspects new construction, remodeling, add-ons, etc., through building permits. All new construction is required to meet state and federal rules regarding water –conserving plumbing fixtures.

The City does not offer a program for the replacement or retrofit of water conserving plumbing fixtures in existing structures other than what would be required through the permitting process for re-models and building upgrades.

3.10 Recycling and Reuse

The City has no program regarding the reuse of gray water.

3.11 Other Conservation Measures

The city recognizes that in order to accomplish the goals and objectives of this water conservation plan, other conservation measures may be required that are not outlined within the body of this document. The City is aware of the Water Conservation Best Management Practices Guide published by the Water Conservation Implementation Task Force in November 2004. As deemed necessary, the City will implement other measures either from the BMP guide or as otherwise seen fit to assure compliance with the plan.

SECTION 4.0: DROUGHT CONTINGENCY PLAN

In addition to this Water Conservation Plan, the City also has a Drought Contingency Plan. Drought contingency planning has been developed as a part of this Water Conservation Plan as a means of dealing with conditions which occur from drought and/or water emergencies. The drought contingency and water emergency management phase of the conservation plan has been developed using the guidelines of the TCEQ and the TWDB.